INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. Scott Irons
Citation Bohn Aluminum Corp.
P.O. Box 80
Butler, Indiana 46271

Re: 033-15396
Third Significant Permit Revision to
FESOP 033-7938-00016

Dear Mr. Irons:

Citation Bohn Aluminum was issued a FESOP on January 26, 1999 to operate the secondary aluminum foundry and die casting plant located at 6378 U.S. Highway 6 West, Butler, Indiana, 46721. A letter requesting a permit revision was received on March 18, 2002. Pursuant to the provisions of 326 IAC 2-8-11.1(f) a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The revision consists of the approved construction and operation of the following emission units and pollution control devices:

(a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, to be installed in July 2002, equipped with four (4) natural gas fired burners rated at 9.2 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-1.

(b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, to be installed in July 2002, equipped with three (3) natural gas fired burners rated at 7.86 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-2.

The following existing insignificant activity is also being revised consistent with the above change:

(c) Aluminum pouring and casting operations for furnaces A1 through A11 rated at 26.26 tons of melted aluminum per hour.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. A copy of the revised permit is attached.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Michael Hirtler, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or at 973-575-2555, extension 3229, or in Indiana at 1-800-451-6027.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
MH / EVP
c: File - DeKalb County
U.S. EPA, Region V
DeKalb County Health Department
IDEM Northern Regional Office
Air Compliance Section Inspector - Doyle Houser
Compliance Data Section - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

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www.state.in.us/idem

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

Citation Bohn Aluminum Corporation
6378 U.S. Highway 6 West
Butler, Indiana 46721

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F033-7938-00016	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: January 26, 1999 Expiration Date: January 26, 2004

First Administrative Amendment: 033-14004-00016 Issuance Date: May 14, 2001
First Significant Permit Revision: 033-14732-00016 Issuance Date: October 29, 2001
Second Significant Permit Revision: 033-14858-00016 Issuance Date: January 4, 2002

Third Significant Permit Revision: 033-15396-00016	Pages Affected: Cover Page, 3-5, 7, 27-34, 36, 40
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary secondary aluminum foundry and die casting operation plant.

Responsible Official:	Leonard J. Roselle
Source Address:	6378 U.S. Highway 6 West, Butler, Indiana 46721
Mailing Address:	P.O. Box 80, Butler, Indiana 46721
SIC Code:	3365,3363,3341
County Location:	DeKalb
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, to be installed in July 2002, equipped with four (4) natural gas fired burners rated at 9.2 million (MM) British thermal units (Btu) per hour total, exhausting through one (1) stack identified as E-1.

(b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, to be installed in July 2002, equipped with three (3) natural gas fired burners rated at 7.86 MMBtu per hour total, exhausting through one (1) stack identified as E-2.

(c) One (1) reverberatory melt furnace identified as A3 with a maximum melt capacity of 1.25 tons of aluminum per hour, equipped with two (2) natural gas fired burners rated at 7.52 MMBtu per hour total, exhausting through one (1) stack identified as E-3.

(d) One (1) reverberatory melt furnace identified as A4 with a maximum melt capacity of 1.25 tons of aluminum per hour, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-4.

(e) One (1) reverberatory melt furnace identified as A5 with a maximum melt capacity of 1.25 tons of aluminum per hour, equipped with two (2) natural gas fired burners rated at 6.7 MMBtu per hour total, exhausting through one (1) stack identified as E-5.

(f) One (1) reverberatory melt furnace identified as A6 with a maximum melt capacity of 1.25 tons of aluminum per hour, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-6.

(g) One (1) reverberatory melt furnace identified as A7 with a maximum melt capacity of 1.0 ton of aluminum per hour, equipped with two (2) natural gas fired burners rated at 5.2 MMBtu per hour total, exhausting through one (1) stack identified as E-7.

(h) One (1) reverberatory melt furnace identified as A8 with a maximum melt capacity of 0.25 tons of aluminum per hour, equipped with one (1) natural gas fired burner rated at 2.5 MMBtu per hour, exhausting through one (1) stack identified as E-8.

(i) One (1) reverberatory melt furnace identified as A9 with a maximum melt capacity of 2.5 tons of aluminum per hour, equipped with four (4) natural gas fired burners rated at 10.6 MMBtu per hour total, exhausting through one (1) stack identified as E-9.

(j) One (1) reverberatory melt furnace identified as A10 with a maximum melt capacity of 2.5 tons of aluminum per hour, equipped with six (6) natural gas fired burners rated at 9.0 MMBtu per hour total, exhausting through one (1) stack identified as E-10.

(k) One (1) reverberatory melt furnace identified as A11 with a maximum melt capacity of 0.9 tons of aluminum per hour, equipped with six (6) natural gas fired burners rated at 15.9 MMBtu per hour total, exhausting through one (1) stack identified as E-11.

(l) One (1) reverberatory melt furnace identified as A12 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-12.

(m) One (1) reverberatory melt furnace identified as A13 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 MMBtu per hour total, exhausting through one (1) stack identified as E-13.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, as follows:

(1) Thirty (30) natural gas-fired crucible holding furnaces, individually identified as HF1 through HF24 and HF28 through HF33, with a total combined maximum heat input rating of 21.9 MMBtu per hour;

(2) Four (4) natural gas-fired reverberatory holding furnaces, individually identified as S1, S2, S3, and S4, each with a maximum heat input rating of 5.8 MMBtu per hour;

(3) Two (2) natural gas-fired reverberatory holding furnaces, individually identified as H1 and H2, each with a maximum heat input rating of 1.48 MMBtu per hour and exhausting through one (1) stack identified as E-H; and

(4) Two (2) natural gas-fired heat treat furnaces, individually identified as HT1 and HT2, each with a maximum heat input rating of 0.3 MMBTU per hour.

(b) Combustion source flame safety purging pump.

(c) Machining where an aqueous cutting coolant continuously floods the machining interface.

(d) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(e) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.

(f) Quenching operations used with heat treating processes.

(g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(h) Heat exchanger cleaning and repair.

(i) Process vessel degassing and cleaning to prepare for internal repairs.

(j) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection trim material recovery device such as a bag filter or cyclone, including two (2) sawing and trimming operations individually identified as C-1 and C-2, with a combined maximum processing capacity of 3.8 tons aluminum per hour, with each operation utilizing one (1) cyclone for particulate matter control and one (1) exhaust stack respectively identified as E14 and E15.

(k) Paved and unpaved roads and parking lots with public access.

(l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(m) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(n) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees Celsius).

(o) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(p) Other activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:

(1) Aluminum pouring and casting operations for furnaces A1 through A11 rated at 26.26 tons of melted aluminum per hour.

(2) Aluminum pouring and casting operation for furnaces A12 and A13, identified as ME Cell, rated at 7.0 tons of melted aluminum per hour.

(q) Ten (10) electric crucible holding furnaces, individually identified as HF34 through HF43.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-8-6]

(a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM.

(b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

(c) Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAQ, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAQ, or the U.S. EPA, the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

Such confidentiality claim shall meet the requirements of 40 CFR 2, Subpart B (when submitting to U.S. EPA) and 326 IAC 17 (when submitting to IDEM, OAQ).

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining compliance of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) An emergency as defined in 326 IAC 2-7-1(12); or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)]

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due. [326 IAC 2-5-3]

(2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-8-10] [326 IAC 2-8-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)(2)]

Notwithstanding 326 IAC 2-8-11(b)(1)(D)(i) and 326 IAC 2-8-11(c)(1), minor permit modification procedures may be used for modifications of this permit involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches to the extent that such minor permit modification procedures are explicitly provided for in the applicable State Implementation

Plan (SIP) or in applicable requirements promulgated by U.S. EPA.

B.20 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-8-15(b)]

The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional condition:

For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

B.21 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.22 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-8-5(a)(4)]

(1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAQ, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAQ, nor an authorized representative, may disclose the information unless and until IDEM, OAQ, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]

(2) The Permittee, *and* IDEM, OAQ, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

B.24 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-8-10]

Pursuant to 326 IAC 2-1-6 and 2-8-10:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current Permittee and the new owner.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-8-10. The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) IDEM, OAQ shall reserve the right to issue a new permit.

B.25 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant from the entire source shall be limited to less than one-hundred (100) tons per three hundred sixty-five (365) consecutive day period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per three hundred sixty-five (365) consecutive day period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per three hundred sixty-five (365) consecutive day period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings, as determined in 326 IAC 5-1-4.

(b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notify:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.11 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed, according to the provisions of 326 IAC 3, or 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

(a) Submit:

(1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or

(2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

(3) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

(b) Provide annual certification to IDEM, OAQ, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.13 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5][326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 Monitoring Data Availability [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative, for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request If the Commissioner (or local agency) makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or local agency within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.

(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 **FACILITY OPERATION CONDITIONS**

Facility Descriptions [326 IAC 2-8-4(10)]:

(a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, to be installed in July 2002, equipped with four (4) natural gas fired burners rated at 9.2 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E1.

(b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, to be installed in July 2002, equipped with three (3) natural gas fired burners rated at 7.86 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E2.

(c) One (1) reverberatory melt furnace identified as A3 with a maximum melt capacity of 1.25 tons of aluminum per hour, equipped with two (2) natural gas fired burners rated at 7.52 MMBtu per hour total, exhausting through one (1) stack identified as E-3.

(d) One (1) reverberatory melt furnace identified as A4 with a maximum melt capacity of 1.25 tons of aluminum per hour, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-4.

(e) One (1) reverberatory melt furnace identified as A5 with a maximum melt capacity of 1.25 tons of aluminum per hour, equipped with two (2) natural gas fired burners rated at 6.7 MMBtu per hour total, exhausting through one (1) stack identified as E-5.

(f) One (1) reverberatory melt furnace identified as A6 with a maximum melt capacity of 1.25 tons of aluminum per hour, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-6.

(g) One (1) reverberatory melt furnace identified as A7 with a maximum melt capacity of 1.0 ton of aluminum per hour, equipped with two (2) natural gas fired burners rated at 5.2 MMBtu per hour total, exhausting through one (1) stack identified as E-7.

(h) One (1) reverberatory melt furnace identified as A8 with a maximum melt capacity of 0.25 tons of aluminum per hour, equipped with one (1) natural gas fired burner rated at 2.5 MMBtu per hour, exhausting through one (1) stack identified as E-8.

(i) One (1) reverberatory melt furnace identified as A9 with a maximum melt capacity of 2.5 tons of aluminum per hour, equipped with four (4) natural gas fired burners rated at 10.6 MMBtu per hour total, exhausting through one (1) stack identified as E-9.

(j) One (1) reverberatory melt furnace identified as A10 with a maximum melt capacity of 2.5 tons of aluminum per hour, equipped with six (6) natural gas fired burners rated at 9.0 MMBtu per hour total, exhausting through one (1) stack identified as E-10.

(k) One (1) reverberatory melt furnace identified as A11 with a maximum melt capacity of 0.9 tons of aluminum per hour, equipped with six (6) natural gas fired burners rated at 15.9 MMBtu per hour total, exhausting through one (1) stack identified as E-11.

(l) One (1) reverberatory melt furnace identified as A12 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-12.

(m) One (1) reverberatory melt furnace identified as A13 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 MMBtu per hour total, exhausting through one (1) stack identified as E-13.

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, as follows:

(a) Thirty (30) natural gas-fired crucible holding furnaces, individually identified as HF1 through HF24 and HF28 through HF33, with a total combined maximum heat input rating of 21.9 MMBtu per hour;

(b) Four (4) natural gas-fired reverberatory holding furnaces, individually identified as S1, S2, S3, and S4, each with a maximum heat input rating of 5.8 MMBtu per hour; and

(c) Two (2) natural gas-fired reverberatory holding furnaces, individually identified as H1 and H2, each with a maximum heat input rating of 1.48 MMBtu per hour and exhausting through one (1) stack identified as E-H.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the furnaces except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements become applicable to all Group 1 reverberatory and holding furnaces on March 24, 2003. If any changes to 40 CFR 63, Subpart RRR are made effective between the date of issuance of this permit and March 24, 2003, the Permittee shall apply for a permit modification to incorporate the detailed requirements of the rule within 30 days after the changes noticed at 67 Fed. Reg. 41125 (June 14, 2002) are made effective. Notwithstanding any condition of this permit, for the purposes of determining compliance with this permit, the applicability, compliance deadlines and requirements of 40 CFR 63, Subpart RRR will be determined based on the regulatory provisions of that Subpart as they exist on any particular day of operation, taking into account any changes that have been made to regulations. This facility is an area source under Clean Air Act Section 112. Therefore, only the area source requirements of Subpart RRR apply to these facilities.

D.1.2 Secondary Aluminum Production NESHAP Requirements [40 CFR Part 63 (Subpart RRR)]

(a) Reverberatory melt furnaces A1 and A2 shall not commence operation until August 13, 2002. Therefore, pursuant to 67 Federal Register 41118, June 14, 2002 and 40 CFR 63.1501, the source shall comply with the applicable requirements of 40 CFR Part 63, Subpart RRR, by March 24, 2003.

(b) The Group 1 reverberatory and holding furnaces at this source are subject to the requirements of this rule and shall comply with the requirements of this rule as they exist as of March 24, 2003 (the compliance date of the rule). If any changes to 40 CFR 63, Subpart RRR are made effective between the date of issuance of this permit and March 24, 2003, the Permittee shall apply for a permit modification to incorporate the detailed requirements of the rule within 30 days after the changes noticed at 67 Fed. Reg. 41125 (June 14, 2002) are made effective. Notwithstanding any condition of this permit, for the purposes of determining compliance with this permit, the applicability, compliance deadlines and requirements of 40 CFR 63, Subpart RRR will be determined based on the regulatory provisions of that Subpart as they exist on any particular day of operation, taking into account any changes that have been made to regulations.

(c) This source is required to have a Part 70 permit pursuant to 40 CFR 63.1500(f). Accordingly, and pursuant to the deferral date established by IDEM for an area source subject to this rule, the Permittee shall submit a Part 70 permit application to the IDEM, OAQ, by no later than December 9, 2005.

D.1.3 PSD Minor and FESOP Limits [326 IAC 2-2] [40 CFR 52.21][326 IAC 2-8]

The source shall limit the total aluminum production in reverberatory melt furnaces A1 through A13 such that:

(a) The potential to emit particulate matter (PM) shall be limited to less than 89.4 tons per twelve (12) consecutive month period, based on the following formula:

PM = (total metal produced, furnace A1)*EF_{A1} + (total metal produced, furnaces A3 to A11)*$EF_{A3,A11}$+ (total metal produced, furnaces A2, A12 and A13)*$EF_{A2,A12,A13}$

where: EF_{A1} = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnace A1, which is equal to the lesser of the most recent stack test or Condition D.1.3(c).

$EF_{A3,A11}$ = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnaces A3 through A11, which is equal to the lesser of the most recent stack test or Condition D.1.3(d).

$EF_{A2,A12,A13}$ = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnaces A2, A12 and A13, which is equal to the lesser of the most recent stack test or Condition D.1.3(e).

(b) The potential to emit PM-10 shall be limited to less than 85.2 tons per twelve (12) consecutive month period, based on the following formula:

PM10 = (total metal produced, furnaces A1 to A13)*$EF_{A1,A13}$

where: $EF_{A1,A13}$ = emission factor (lb PM-10 emitted per ton of metal produced, lb PM-10/ton) for furnaces A1 through A13 which is equal to the lesser of the most recent stack test or Condition D.1.3(f).

(c) PM emissions from furnace A1 shall not exceed 2.6 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle;

(d) PM emissions from furnaces A3 through A11 shall not exceed 3.0 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle;

(e) PM emissions from furnaces A2, A12 and A13 shall not exceed 2.7 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle;

(f) PM-10 emissions from each furnace (A1 through A13) shall not exceed 2.6 pounds of PM-10 emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle.

These usage limits are required to limit the source-wide potential to emit both PM and PM-10 to less than 100 tons per twelve (12) consecutive month period. Compliance with this condition makes the requirements of 326 IAC 2-2 and 40 CFR 52.21 and 326 IAC 2-7 (Part 70) not applicable.

D.1.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-8]

The aluminum refining (i.e., flux addition) stage at the end of the melt cycle in furnaces A1 through A13 shall be limited as follows:

(a) The total hexachloroethane input usage in the fluxing process shall not exceed 56,237 pounds per twelve (12) consecutive month period. The total amount of hexachloroethane used each month shall not exceed the difference between the annual limit minus the sum of actual hexachloroethane used during the previous eleven (11) months.

(b) Hydrochloric acid (HCl) emissions from each furnace shall not exceed 0.3343 pounds of HCl emitted per pound of hexachloroethane used.

(c) This usage limit is required to limit the potential to emit of a single HAP to less than 10 tons per twelve (12) consecutive month period. Compliance with (a) and (b) of this condition shall also limit the source-wide potential to emit combined HAPs to less than 25 tons per 12 consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply.

D.1.5 Particulate Matter (PM) [326 IAC 6-3-2(c)]

(a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the facilities shall be limited as follows:

(1) The facility identified as A1 shall not exceed 10.08 pounds per hour when operating at a process weight rate of 3.83 tons per hour.

(2) The facility identified as A2 shall not exceed 9.09 pounds per hour when operating at a process weight rate of 3.28 tons per hour.

(3) The facility identified as A3 shall not exceed 4.84 pounds per hour when operating at a process weight rate of 1.28 tons per hour.

(4) The facility identified as A4 shall not exceed 4.84 pounds per hour when operating at a process weight rate of 1.28 tons per hour.

(5) The facility identified as A5 shall not exceed 4.84 pounds per hour when operating at a process weight rate of 1.28 tons per hour.

(6) The facility identified as A6 shall not exceed 4.84 pounds per hour when operating at a process weight rate of 1.28 tons per hour.

(7) The facility identified as A7 shall not exceed 4.19 pounds per hour when operating at a process weight rate of 1.03 tons per hour.

(8) The facility identified as A8 shall not exceed 1.76 pounds per hour when operating at a process weight rate of 0.28 tons per hour.

(9) The facility identified as A9 shall not exceed 7.64 pounds per hour when operating at a process weight rate of 2.53 tons per hour.

(10) The facility identified as A10 shall not exceed 7.64 pounds per hour when operating at a process weight rate of 2.53 tons per hour.

(11) The facility identified as A11 shall not exceed 3.91 pounds per hour when operating at a process weight rate of 0.93 tons per hour.

(12) The facility identified as A12 shall not exceed 9.49 pounds per hour when operating at a process weight rate of 3.5 tons per hour.

(13) The facility identified as A13 shall not exceed 9.49 pounds per hour when operating at a process weight rate of 3.5 tons per hour.

(b) The pounds per hour allowable PM emission rates were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirements

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1),(4)]

(a) During the period within six (6) months after issuance of significant permit revision 033-14858 (i.e., January 4, 2002 through July 4, 2002), the Permittee shall perform initial testing on one (1) of the two (2) reverberatory furnaces A12 and A13 in accordance with paragraphs (c)(1) and (c)(2) of this condition to respectively demonstrate compliance with Conditions D.1.3 and D.1.4.

(b) During the period within six (6) months after issuance of this significant permit revision 033-15396, the Permittee shall perform initial testing on reverberatory furnace A1 in accordance with paragraphs (c)(1) and (c)(2) of this condition to respectively demonstrate compliance with the emission factors of Conditions D.1.3(c), D.1.3(f) and D.1.4(b).

(c) During the period of July 2006 to November 2006, the Permittee shall perform testing on reverberatory furnaces A1, A2, one (1) of furnaces A3 through A6, one (1) of furnaces A9 and A10, and one (1) of furnaces A12 and A13, as follows:

(1) During metal melting and metal fluxing the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner, to demonstrate compliance with Condition D.1.3. PM-10 includes filterable and condensible PM-10.

(2) During the end of a melt cycle that encompasses the entire metal fluxing process, the Permittee shall perform HAP testing for hydrochloric acid utilizing Methods 18, 26A (40 CFR 60, Appendix A), or other methods as approved by the Commissioner, to demonstrate compliance with Condition D.1.4.

(d) Testing shall be repeated at least once every five years from the date of this valid compliance demonstration.

(e) In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.7 Visible Emissions Notations

(a) Visible emission notations of the reverberatory melt furnaces' exhaust stacks (E-1 through E-13) shall be performed once per shift during normal daylight operations when metal melting and fluxing is occurring and when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.8 Record Keeping Requirements

(a) To document compliance with Condition D.1.3 the Permittee shall maintain records in accordance with (1) and (5) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual total aluminum produced in furnaces A1-A11 for each month;

(3) Actual total aluminum produced in furnaces A12-A13 for each month;

(4) The PM and PM10 emission factors applied in Conditions D.1.3(a) and (b), respectively, for each month; and

(5) The emitted PM and PM10 for each month of the compliance determination period.

(b) To document compliance with Condition D.1.4 the Permittee shall maintain records in accordance with (1) and (2) below.

(1) Calendar dates covered in the compliance determination period; and

(2) Actual total hexachloroethane input usage and the emitted hydrochloric acid for each month of the compliance determination period.

(c) To document compliance with Condition D.1.7 the Permittee shall maintain records of once per shift visible emission notations of the reverberatory melt furnace exhaust stacks.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.9 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.3 and D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the calendar quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Descriptions [326 IAC 2-8-4(10)]: The following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(b) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection trim material recovery device such as a bag filter or cyclone, including two (2) sawing and trimming operations individually identified as C-1 and C-2, with a combined maximum processing capacity of 3.8 tons aluminum per hour, with each operation utilizing one (1) cyclone for particulate matter control and one (1) exhaust stack respectively identified as E14 and E15.

(c) Other activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:

(1) Aluminum pouring and casting operations for furnaces A1 through A11 rated at 26.26 tons of melted aluminum per hour.

(2) Aluminum pouring and casting operation for furnaces A12 and A13, identified as ME Cell, rated at 7.0 tons of melted aluminum per hour.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the sawing and trimming operations identified as C-1 and C-2 shall not exceed 10.0 pounds per hour when operating at a process weight rate of 3.8 tons per hour.

(b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the pouring and casting operation for furnaces A1 through A11 shall not exceed 36.62 pounds per hour when operating at a process weight rate of 26.26 tons per hour.

(c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the ME Cell pouring and casting operation shall not exceed 15.1 pounds per hour when operating at a process weight rate of 7.0 tons per hour.

(d) The pounds per hour allowable PM emission rates were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.2 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a matter that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-8-5(a)(1),(4)]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no applicable compliance monitoring conditions for these facilities.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

There are no specific record keeping or reporting requirements for these facilities.

SECTION D.3 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]
The modification to this source which includes the installation of:

(a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, to be installed in July 2002, equipped with four (4) natural gas fired burners rated at 9.2 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-1.

(b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, to be installed in July 2002, equipped with three (3) natural gas fired burners rated at 7.86 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.3.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.3.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.3.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.4 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through this permit revision shall be implemented when operation begins.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Citation Bohn Aluminum Corp.
Source Address: 6378 U.S. Highway 6 West, Butler, IN 46721
Mailing Address: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: F033-7938-00016

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY/DEVIATION OCCURRENCE REPORT

Source Name: Citation Bohn Aluminum Corp.
Source Address: 6378 U.S. Highway 6 West, Butler, IN 46721
Mailing Address: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: F033-7938-00016

This form consists of 2 pages **Page 1 of 2**

Check either No. 1 or No.2
9 1. This is an emergency as defined in 326 IAC 2-7-1(12) CThe Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and CThe Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
9 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c) CThe Permittee must submit notice in writing within ten (**10**) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency/Deviation:
Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_x, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Citation Bohn Aluminum Corp.
Source Address: 6378 U.S. Highway 6 West, Butler, IN 46721
Mailing Address: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: F033-7938-00016
Facility: Reverberatory melt furnaces A1 through A13
Parameter: Aluminum produced, and PM and PM-10 emitted
Limit: (a) The potential to emit particulate matter (PM) shall be limited to less than 89.4 tons per twelve (12) consecutive month period, based on the following formula:

PM = (total metal produced, furnace A1)EF_{A1} + (total metal produced, furnaces A3 to A11)*$EF_{A3,A11}$+ (total metal produced, furnaces A2, A12 and A13)*$EF_{A2,A12,A13}$*

where: EF_{A1} = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnace A1, which is equal to the lesser of the most recent stack test or Condition D.1.3(c).
$EF_{A3,A11}$ = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnaces A3 through A11, which is equal to the lesser of the most recent stack test or Condition D.1.3(d).
$EF_{A2,A12,A13}$ = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnaces A2, A12 and A13, which is equal to the lesser of the most recent stack test or Condition D.1.3(e).

(b) The potential to emit PM-10 shall be limited to less than 85.2 tons per twelve (12) consecutive month period, based on the following formula:
PM10 = (total metal produced, furnaces A1 to A13)$EF_{A1,A13}$*
where: $EF_{A1,A13}$ = emission factor (lb PM-10 emitted per ton of metal produced, lb PM-10/ton) for furnaces A1 through A13 which is equal to the lesser of the most recent stack test or Condition D.1.3(f).

YEAR: _____

Month	This Month			Previous 11 Months			Total 12 Months		
	Aluminum Produced, A1-A13 (tons)	Total Emitted (tons)		Aluminum Produced, A1-A13 (tons)	Total Emitted (tons)		Aluminum Produced, A1-A13 (tons)	Total Emitted (tons)	
		PM	PM10		PM	PM10		PM	PM10

9 No deviation occurred in this quarter. **9** Deviation/s occurred in this quarter. Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Citation Bohn Aluminum Corp.
Source Address: 6378 U.S. Highway 6 West, Butler, IN 46721
Mailing Address: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: F033-7938-00016
Facility: Total hexachloroethane input usage in the fluxing process
Parameter: Hexachloroethane
Limit: The total hexachloroethane input usage in the fluxing process is limited to 56,237 pounds per twelve (12) consecutive month period. The total amount of hexachloroethane used each month shall not exceed the difference between the annual limit minus the sum of actual hexachloroethane used during the previous eleven (11) months.

YEAR: _____

Month	Total Hexachloroethane Input Usage to Flux This Month (Tons)	Total Hexachloroethane Input Usage to Flux Last 12 Months (Tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY COMPLIANCE MONITORING REPORT

Source Name: Citation Bohn Aluminum Corp.
Source Address: 6378 U.S. Highway 6 West, Butler, IN 46721
Mailing Address: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: F033-7938-00016

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (e.g. Permit Condition D.1.5)	**Number of Deviations**	**Date of each Deviations**

Form Completed By: _____
Title/Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document a Significant Permit Revision to a
Federally Enforceable State Operating Permit (FESOP)

Source Name:	**Citation Bohn Aluminum Corporation**
Source Location:	**6378 U.S. Highway 6 West, Butler, Indiana 46721**
County:	**DeKalb**
SIC Code:	**3365,3363,3341**
Operation Permit No.:	**F033-7938-00016**
Operation Permit Issuance Date:	**January 26, 1999**
Significant Permit Revision No.:	**033-15396-00016**
Permit Reviewer:	**Michael Hirtler / EVP**

On June 11, 2002, the Office of Air Quality (OAQ) had a notice published in the Auburn Evening Star, in Auburn, Indiana, stating that Citation Bohn Aluminum Corp. had applied for a Significant Permit Revision to their FESOP to add two (2) new replacement reverberatory melt furnaces at their existing secondary aluminum foundry and die casting source. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

No comments were received on the draft permit. However, on March 23, 2000, U.S. EPA issued a final rule relating to the control of hazardous air pollutants for the secondary aluminum production source category. The rule is promulgated at 40 CFR Part 63, Subpart RRR (National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production), and it applies to both major and area sources at *secondary aluminum production facilities*. Although applicable to Citation Bohn Aluminum Corp. as an aluminum die casting operation, EPA announced shortly after Subpart RRR promulgation that the requirements of the rule would be withdrawn until a separate MACT standard was developed for such source operations. Recently, EPA and the American Foundrymen's Society entered into a settlement agreement and this agreement has resulted in EPA withdrawing their proposal to stay the requirements of Subpart RRR as applicable to aluminum die casters and foundries (67 Federal Register 41138, June 14, 2002). Consequently, this permit is revised to include the rule requirements as discussed below.

The requirements of the NESHAP 40 CFR 63, Subpart RRR apply to proposed new replacement reverberatory furnaces A1 and A2 and to the existing reverberatory furnaces A3 to A13, all "Group 1 furnaces." The miscellaneous holding furnaces, as an insignificant activity, and which do not perform fluxing, are also considered as Group 1 furnaces. Pursuant to the current version of the rule, these furnaces are required to comply with all the emission limits, operating standards, monitoring, testing, record keeping, and reporting requirements as Group 1 furnaces located at *secondary aluminum production facilities*. The compliance date of the rule is March 24, 2003. EPA and the American Foundrymen's Society recently entered into a settlement agreement regarding the requirements of this rule as it applies to Group 1 furnaces at foundries and die cast facilities. As a result of this agreement, EPA proposed changes to the NESHAP on June 14, 2002. As proposed (67 Federal Register 41125, June 14, 2002), EPA would revise the definition of "clean charge" and other terms, and add new definitions to Subpart RRR. This would include revising the definition of *secondary aluminum production facility* to exclude from this definition, aluminum die casting facilities, aluminum foundries, and aluminum extrusion facilities "if the only materials they melt are clean charge, customer returns, or internal scrap, and if they do not operate sweat furnaces,

thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns."

EPA also issued a direct final rule on June 14, 2002, clarifying the Subpart RRR compliance dates for affected sources (67 Federal Register 41118, June 14, 2002). The direct final rule, which amends 40 CFR 63.1501, adds a new provision that specifies that the later of March 24, 2003 or the startup date is the Subpart RRR compliance date for new equipment constructed or reconstructed at existing affected sources. The date of compliance for existing affected sources remains unchanged as March 24, 2003. The direct final rule becomes effective on August 13, 2002.

As a result of these expected final changes, the detailed requirements of the NESHAP, as currently applicable to the Group 1 furnaces at this source, will not be included in this permit. Rather, the permit will state that the Group 1 furnaces at this source are subject to the requirements of the NESHAP 40 CFR 63, Subpart RRR, and will require the source to comply with those requirements as they exist as of the compliance date of the rule. The compliance date for the proposed two (2) new replacement furnaces at this sources will be March 24, 2003. The source has accepted a permit condition that prohibits operation of the two (2) new furnaces until August 13, 2002 (i.e., direct final rule effective date), thereby establishing March 24, 2003 as the compliance date for both the existing and new affected facilities. The permit will also include a condition requiring the Permittee to apply for a Permit Modification within 30 days after the rule changes noticed at 67 Fed. Reg. 41125 (June 14, 2002) are final, but no later than March 24, 2003, so that the detailed requirements of the NESHAP 40 CFR 63, Subpart RRR, as they will apply to the Group 1 furnaces, can be added to the permit. Finally, a condition will be added to the permit requiring the Permittee to submit a Part 70 permit application by the Indiana deferred deadline for area sources of December 9, 2005. This requirement is consistent with 40 CFR 63.1500(f).

The new conditions are stated in bold below. The holding furnaces, as insignificant activities, are now added to the equipment description box in Section D.1 without replication herein. Also, all conditions in Section D.1 subsequent to new D.1.2 are renumbered without replication herein:

D.1.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the furnaces except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements become applicable to all Group 1 reverberatory and holding furnaces on March 24, 2003. If any changes to 40 CFR 63, Subpart RRR are made effective between the date of issuance of this permit and March 24, 2003, the Permittee shall apply for a permit modification to incorporate the detailed requirements of the rule within 30 days after the changes noticed at 67 Fed. Reg. 41125 (June 14, 2002) are made effective. Notwithstanding any condition of this permit, for the purposes of determining compliance with this permit, the applicability, compliance deadlines and requirements of 40 CFR 63, Subpart RRR will be determined based on the regulatory provisions of that Subpart as they exist on any particular day of operation, taking into account any changes that have been made to regulations. This facility is an area source under Clean Air Act Section 112. Therefore, only the area source requirements of Subpart RRR apply to these facilities.

D.1.2 Secondary Aluminum Production NESHAP Requirements [40 CFR Part 63 (Subpart RRR)]

(a) Reverberatory melt furnaces A1 and A2 shall not commence operation until August 13, 2002. Therefore, pursuant to 67 Federal Register 41118, June 14, 2002 and 40 CFR 63.1501, the source shall comply with the applicable requirements of 40 CFR Part 63, Subpart RRR, by March 24, 2003.

(b) The Group 1 reverberatory and holding furnaces at this source are subject to the requirements of this rule and shall comply with the requirements of this rule as they exist as of March 24, 2003 (the compliance date of the rule). If any changes to 40 CFR 63, Subpart RRR are made effective between the date of issuance of this permit and March 24, 2003, the Permittee shall apply for a permit modification to incorporate the detailed requirements of the rule within 30 days after the changes noticed at 67 Fed. Reg. 41125 (June 14, 2002) are made effective. Notwithstanding any condition of this permit, for the purposes of determining compliance with this permit, the applicability, compliance deadlines and requirements of 40 CFR 63, Subpart RRR will be determined based on the regulatory provisions of that Subpart as they exist on any particular day of operation, taking into account any changes that have been made to regulations.

(c) This source is required to have a Part 70 permit pursuant to 40 CFR 63.1500(f). Accordingly, and pursuant to the deferral date established by IDEM for an area source subject to this rule, the Permittee shall submit a Part 70 permit application to the IDEM, OAQ, by no later than December 9, 2005.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	**Citation Bohn Aluminum Corporation**
Source Location:	**6378 U.S. Highway 6 West, Butler, Indiana 46721**
County:	**DeKalb**
SIC Code:	**3365,3363,3341**
Operation Permit No.:	**F033-7938-00016**
Operation Permit Issuance Date:	**January 26, 1999**
Significant Permit Revision No.:	**033-15396-00016**
Permit Reviewer:	**Michael Hirtler / EVP**

The Office of Air Quality (OAQ) has reviewed a revision application from Citation Bohn Aluminum Corporation relating to the operation of their secondary aluminum foundry and die casting source.

History

On March 18, 2002, Citation Bohn Aluminum Corporation submitted an application to the OAQ requesting approval for two (2) new reverberatory melt furnaces at their existing plant. These two (2) new furnaces, identified as A1 and A2, will replace the existing A1 and A2 furnaces that currently operate at this source. This approval will increase the maximum melt capacities at the two facilities, going from the current A1 and A2 maxima of 0.6 and 0.8 tons of aluminum melted per hour to 3.83 and 3.28 tons of aluminum melted per hour, respectively. Citation Bohn Aluminum Corporation has requested, however, that the current FESOP status remain unchanged for this source. Citation Bohn Aluminum Corporation was issued FESOP No. 033-7938-00016 on January 26, 1999.

New Emission Units and Pollution Control Equipment

The source consists of the following new emission units and pollution control devices during this review process:

(a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, to be installed in July 2002, equipped with four (4) natural gas fired burners rated at 9.2 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-1.

(b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, to be installed in July 2002, equipped with three (3) natural gas fired burners rated at 7.86 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-2.

Upon its approval, the new equipment will replace the following facilities as listed in Sections A.2 and A.3 of FESOP No. 033-7938-00016, issued on January 26, 1999:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 0.6 tons of aluminum per hour, equipped with two (2) natural gas fired burners rated at 2.96 million (MM) British thermal units (Btu) per hour total, exhausting through one (1) stack identified as E-1.

(b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 0.8 tons of aluminum per hour, equipped with two (2) natural gas fired burners rated at 6.7 MMBtu per hour total, exhausting through one (1) stack identified as E-2.

Existing Approvals

The source was issued a FESOP No. 033-7938-00016 on January 6, 1999. The source has since received the following:

(a) First Administrative Amendment No. 033-14004, issued on May 14, 2001.

(b) First Significant Permit Revision No. 033-14732, issued on October 29, 2001.

(c) Second Significant Permit Revision No. 033-14858, issued on January 4, 2002.

The source has since been operating under these approvals.

Enforcement Issue

There are no enforcement actions pending relating to this application.

Stack Summary

The new equipment will utilize existing stacks and no new stacks are listed in this approval.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 18, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (see Appendix A, pages 1 through 6.)

Potential To Emit for the Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

The potential to emit for the revision reflects the capacities of new replacement furnaces A1 and A2, individually rated at 3.83 and 3.28 tons per hour of aluminum melted, respectively:

Pollutant	Potential To Emit (tons/year)
PM	82.6
PM-10	81.5
SO_2	0.0
VOC	0.9
CO	6.3
NO_x	7.5

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
hydrochloric acid	3.8
hydrogen fluoride	0.2
hexachloroethane	0.01
TOTAL	4.0

Justification for Revision

The FESOP is being revised through a FESOP Significant Permit Revision based on the following:

(a) This revision is being performed pursuant to 326 IAC IAC 2-8-11.1(f)(1) since the potential to emit PM and PM10 from this revision are both equal to or greater than 25 tons per year.

(b) This revision is being performed pursuant to 326 IAC IAC 2-8-11.1(g) since the modification requires an adjustment to the existing emissions cap limitation.

Potential to Emit for the Source After the Revision

The source, issued a FESOP on January 26, 1999, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. The source's potential to emit includes the emission units included in the original FESOP (F003-5405-03112; issued on December 13, 1996) and subsequent approvals.

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
total metal melting at furnaces (1) A1-A13, including flux addition	~~<89.5~~ (2) **<89.4**	~~<85.8~~ (2) **<85.2**	0.0	~~0.0~~ **1.5**	0.0	0.0	9.4 (3) (single HAP)
miscellaneous insignificant (4) activities	9.2	9.2	~~1.2~~ **0.6**	~~8.5~~ **4.5**	0.0	~~0.6~~ **0.3**	0.0
total source natural gas combustion as insignificant activity	~~1.3~~ **1.4**	~~5.0~~ **5.6**	0.4	~~3.6~~ **4.1**	~~55.6~~ **61.9**	~~66.2~~ **73.7**	Negligible
Total PTE for Source After Issuance	<100 (2)	<100 (2)	~~1.6~~ **1.0**	~~12.1~~ **10.0**	~~55.6~~ **61.9**	~~66.8~~ **74.0**	10.2 (total HAPs)

1. Metal melting at each of furnaces A1 to A13 are considered as significant activities. However, pursuant to Conditions D.1.1 and D.1.2, total metal melting operations at the 13 furnaces is limited such that the source remains below the applicable emission limits.
2. Values in strikeout reflect limited emissions from second Significant Permit Revision (SPR) 033-14858, issued January 4, 2002. Values in bold reflect revised limited emissions for this third SPR based on Condition D.1.1, which limits total source metal production, including new furnaces A1 & A2 plus existing furnaces A3-A13; based on changes in natural gas burner ratings associated with new replacement furnaces A1 and A2; and to correct minor computational errors from SPR 033-14858.
3. Based on Condition D.1.2.
4. Includes metal pouring/casting and sawing/trimming of metal castings.

County Attainment Status

The source is located in DeKalb County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. DeKalb County has been designated as attainment or unclassifiable for ozone.

Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) DeKalb County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is one of the 28 listed source categories under 326 IAC 2-2, the fugitive particulate matter emissions are counted toward determination of PSD applicability.

Federal Rule and State Rule Applicability

There are no changes in federal and state rule applicability to the source due to the proposed significant permit revision, except for the following:

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the PTE 10 tons per year of any HAP or 25 tons per year of the combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). This permit revision will not emit any single HAP at 10 tons per twelve (12) month period or combined HAPs at 25 tons per twelve (12) month period. Therefore, the requirements of 326 IAC 2-4.1-1 do not apply to this revision.

326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD)

This modification to an existing minor stationary source, which was initially constructed prior to the August 7, 1980 rule applicability date, is not major because the source, which is one of the 28 listed source categories, does not have the potential to emit of 100 tons per year or more of any criteria pollutant after controls and enforceable limitations. The source will continue to be both a FESOP and minor stationary source after the modification and no attainment regulated pollutant shall be emitted at a rate of 100 tons per year or more. Therefore, the PSD requirements will continue to not apply.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2(c), particulate matter emissions shall be limited as follows:

(a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the facilities shall be limited as follows:

(1) The facility identified as A1 shall not exceed 10.08 pounds per hour when operating at a process weight rate of 3.83 tons per hour.

(2) The facility identified as A2 shall not exceed 9.09 pounds per hour when operating at a process weight rate of 3.28 tons per hour.

The pounds per hour allowable PM emission rates were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Based on the calculations made, these facilities are in compliance with this requirement (see page 6 of 6, TSD Appendix A). Pursuant to Condition D.1.4, the source shall be required to test compliance initially and at least once every 5-years to demonstrate continued compliance with the applicable limits.

(b) The allowable PM emission rate contained in second Significant Permit Revision No. 033-14858, issued January 4, 2002, for the existing furnace A1 through A11 casting operation as an insignificant activity, is revised to reflect the capacities of new replacement furnaces A1 and A2:

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the pouring and casting operation for furnaces A1 through A11 shall not exceed 36.62 pounds per hour when operating at a process weight rate of 26.26 tons per hour.

The pounds per hour allowable PM emission rate was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Based on the calculations made, this facility is in compliance with this requirement (see page 6 of 6, TSD Appendix A). There will be no compliance monitoring condition inserted into the permit since this facility, as an insignificant activity, has no control device and does not have actual emissions exceeding 25 tons per year.

Proposed Changes to the Federally Enforceable State Operating Permit

The following changes are made as the Third Significant Permit Revision to FESOP No. 033-7938-00016 (new language is shown in **bold** and deleted language is shown with a ~~line through it~~):

1. Sections A.2(a) and (b) (Emission Units and Pollution Control Equipment Summary) and A.3 (Insignificant Activities) are revised to include the new facilities that are the subject of this approval. The same changes are made respectively to the Section D.1 and D.2 facility description boxes without replication herein. Sections A.2 and A.3 are revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of ~~0.6~~ **3.83** tons of aluminum per hour, **to be installed in July 2002**, equipped with ~~two (2)~~ **four (4)** natural gas fired burners rated at ~~2.96~~ **9.2** million (MM) British thermal units (Btu) per hour total, exhausting through one (1) stack identified as E-1.

(b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of ~~0.8~~ **3.28** tons of aluminum per hour, **to be installed in July 2002**, equipped with ~~two (2)~~ **three (3)** natural gas fired burners rated at ~~6.7~~ **7.86** MMBtu per hour total, exhausting through one (1) stack identified as E-2.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, as follows:

(1) Thirty (30) natural gas-fired crucible holding furnaces, individually identified as HF1 through HF24 and HF28 through HF33, with a total combined maximum heat input rating of 21.9 MMBtu per hour;

(2) Four (4) natural gas-fired reverberatory holding furnaces, individually identified as S1, S2, S3, and S4, each with a maximum heat input rating of 5.8 MMBtu per hour;

(3) Two (2) natural gas-fired reverberatory holding furnaces, individually identified as H1 and H2, each with a maximum heat input rating of 1.48 MMBtu per hour and exhausting through one (1) stack identified as E-H; and

(4) Two (2) natural gas-fired heat treat furnaces, individually identified as HT1 and HT2, each with a maximum heat input rating of 0.3 MMBTU per hour.

(b) Combustion source flame safety purging pump.

(c) Machining where an aqueous cutting coolant continuously floods the machining interface.

(d) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(e) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.

(f) Quenching operations used with heat treating processes.

(g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(h) Heat exchanger cleaning and repair.

(i) Process vessel degassing and cleaning to prepare for internal repairs.

(j) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection trim material recovery device such as a bag filter or cyclone, including two (2) sawing and trimming operations individually identified as C-1 and C-2, with a combined maximum processing capacity of 3.8 tons aluminum per hour, with each operation utilizing one (1) cyclone for particulate matter control and one (1) exhaust stack respectively identified as E-14 and E-15.

(k) Paved and unpaved roads and parking lots with public access.

(l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(m) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(n) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees Celsius).

(o) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(p) **Other activities and categories each with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:**

(1) Aluminum pouring and casting operations for furnaces A1 through A11 rated at ~~13.55~~ **26.26** tons of melted aluminum per hour.

(2) Aluminum pouring and casting operation for furnaces A12 and A13, identified as ME Cell, rated at 7.0 tons of melted aluminum per hour.

(~~r~~**q**) Ten (10) electric crucible holding furnaces, individually identified as HF34 through HF43.

2. Condition D.1.1 (PSD Minor and FESOP Limits) is revised to account for the new heat input ratings on the natural gas fired burners associated with new replacement furnaces A1 and A2. These burner capacity changes have resulted in minor PM and PM10 emission limit changes, as reflected at D.1.1(a) and (b), respectively. Revised PM/PM10 emission factors are also included for new replacement furnaces A1 and A2. Based on the new A1 and A2 capacities of 3.83 and 3.28 tons of aluminum melted per hour, which are respectively increased from the existing A1 and A2 maxima of 0.6 and 0.8 tons of aluminum melted per hour, the respectively revised emission factors of 2.6 and 2.7 pounds of PM/PM10 per ton of metal melted ensure that the source will comply with the requirements of 326 IAC 6-3-2. The source shall be required to test the higher capacity furnace (i.e., A1) to demonstrate compliance with this new emission factor, as noted in the change to Condition D.1.4 below. Also, the related quarterly production reporting form is revised and included herein at the end of this document. Condition D.1.1 is revised as follows:

D.1.1 PSD Minor and FESOP Limits [326 IAC 2-2] [40 CFR 52.21][326 IAC 2-8]

The source shall limit the total aluminum production in reverberatory melt furnaces A1 through A13 such that:

(a) The potential to emit particulate matter (PM) shall be limited to less than ~~89.5~~ **89.4** tons per twelve (12) consecutive month period, based on the following formula:

PM = **(total metal produced, furnace A1)*EF_{A1} +** (total metal produced, furnaces ~~A1~~ **A3** to A11)*$EF_{~~A1,A11~~A3,A11}$+ (total metal produced, furnaces **A2,** A12 and A13)*EF_{A2},A12,A13

where: **EF_{A1} = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnace A1, which is equal to the lesser of the most recent stack test or Condition D.1.1(c).**

$EF_{~~A1,A11~~A3,A11}$ = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnaces ~~A1~~ **A3** through A11, which is equal to the lesser of the most recent stack test or Condition D.1.1~~(c)~~**(d)**.

EF_{A2},A12,A13 = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnaces **A2,** A12 and A13, which is equal to the lesser of the most recent stack test or Condition D.1.1~~(d)~~**(e)**.

(b) The potential to emit PM-10 shall be limited to less than ~~85.8~~ **85.2** tons per twelve (12) consecutive month period, based on the following formula:

PM10 = (total metal produced, furnaces A1 to A13)*$EF_{A1,A13}$

where: $EF_{A1,A13}$ = emission factor (lb PM-10 emitted per ton of metal produced, lb PM-10/ton) for furnaces A1 through A13 which is equal to the lesser of the most recent stack test or Condition D.1.1~~(c)~~**(f)**.

(c) **PM emissions from furnace A1 shall not exceed 2.6 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle;**

~~(c)~~**(d)** PM emissions from furnaces ~~A1~~ **A3** through A11 shall not exceed 3.0 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle;

~~(d)~~**(e)** PM emissions from furnaces **A2,** A12 and A13 shall not exceed 2.7 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle;

~~(e)~~**(f)** PM-10 emissions from each furnace (A1 through A13) shall not exceed 2.6 pounds of PM-10 emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle.

These usage limits are required to limit the source-wide potential to emit both PM and PM-10 to less than 100 tons per twelve (12) consecutive month period. Compliance with this condition makes the requirements of 326 IAC 2-2 and 40 CFR 52.21 and 326 IAC 2-7 (Part 70) not applicable.

3. Conditions D.1.3(a)(1) and (a)(2) (Particulate Matter) are revised to reflect the increased melting capacities for the new A1 and A2 replacement furnaces:

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

(a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the facilities shall be limited as follows:

(1) The facility identified as A1 shall not exceed ~~3.02~~ **10.08** pounds per hour when operating at a process weight rate of ~~0.63~~ **3.83** tons per hour.

(2) The facility identified as A2 shall not exceed ~~3.63~~ **9.09** pounds per hour when operating at a process weight rate of ~~0.83~~ **3.28** tons per hour.

4. Condition D.1.4 (Testing Requirements) is revised to include a first-time test requirement for the larger of the two new replacement furnaces (i.e., A1), to verify compliance with the emission factor specified in Condition D.1.1(c), which is less than the AP-42 factor of 4.3 pounds PM per ton of metal produced. Repeat testing for furnace A1 is also added to this condition, and the date of repeat testing is revised such that the repeat testing is to be performed within 5-years of the most recent test which occurred in November, 2001:

D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1),(4)]

(a) During the period within six (6) months after issuance of ~~this~~ **significant permit revision 033-14858 (i.e., January 4, 2002 through July 4, 2002)**, the Permittee shall perform initial testing on one (1) of the two (2) reverberatory furnaces A12 and A13 in accordance with paragraphs ~~(b)~~**(c)**(1) and ~~(b)~~**(c)**(2) of this condition to respectively demonstrate compliance with Conditions D.1.1 and D.1.2.

(b) **During the period within six (6) months after issuance of this significant permit revision 033-15396, the Permittee shall perform initial testing on reverberatory furnace A1 in accordance with paragraphs (c)(1) and (c)(2) of this condition to respectively demonstrate compliance with the emission factors of Conditions D.1.1(c), D.1.1(f) and D.1.2(b).**

~~(b)~~**(c)** During the period ~~within 24 to 30 months after issuance of this permit~~ **of July 2006 to November 2006**, the Permittee shall perform testing on reverberatory furnaces **A1,** A2, one (1) of furnaces A3 through A6, one (1) of furnaces A9 and A10, and one (1) of furnaces A12 and A13, as follows:

(1) During metal melting and metal fluxing the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner, to demonstrate compliance with Condition D.1.1. PM-10 includes filterable and condensible PM-10.

(2) During the end of a melt cycle that encompasses the entire metal fluxing process, the Permittee shall perform HAP testing for hydrochloric acid utilizing Methods 18, 26A (40 CFR 60, Appendix A), or other methods as approved by the Commissioner, to demonstrate compliance with Condition D.1.2~~(a)~~.

~~(c)~~**(d)** Testing shall be repeated at least once every five years from the date of this valid compliance demonstration.

~~(d)~~**(e)** In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

5. Condition D.2.1(b) (Particulate Matter) is revised for the furnace A1 through A11 casting operation, as an insignificant activity, to reflect the increased capacity of new furnaces A1 and A2, and to eliminate reference to an equivalent allowable emission rate expressed in pounds of PM per ton of metal processed, since this is inconsistent with 326 IAC 6-3-2.

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

(b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the pouring and casting operation for furnaces A1 through A11 shall not exceed ~~23.51~~ **36.62** pounds per hour when operating at a process weight rate of ~~13.55~~ **26.26** tons per hour. ~~This is equivalent to 1.74 pounds of PM per ton of metal processed.~~

6. A new Section D.3 is added to the permit, containing new facility construction conditions as follows:

SECTION D.3 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]
The modification to this source which includes the installation of:

(a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, to be installed in July 2002, equipped with four (4) natural gas fired burners rated at 9.2 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-1.

(b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, to be installed in July 2002, equipped with three (3) natural gas fired burners rated at 7.86 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.3.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.3.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.3.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.4 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

Conclusion

The operation of this secondary aluminum foundry and die casting source shall be subject to the conditions of the attached proposed Significant Permit Revision No. 033-15396-00016.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Citation Bohn Aluminum Corp.
Source Address: 6378 U.S. Highway 6 West, Butler, IN 46721
Mailing Address: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: F033-7938-00016
Facility: Reverberatory melt furnaces A1 through A13
Parameter: Aluminum produced, and PM and PM-10 emitted
Limit: (a) The potential to emit PM shall be limited to less than ~~89.5~~ **89.4** tons per 12-consecutive month period, based on the following formula:

PM = **(total metal produced, furnace A1)*EF_{A1} +** (total metal produced, furnaces ~~A1~~ **A3** to A11)*$EF_{A1,A11A3,A11}$+ (total metal produced, furnaces **A2,** A12 and A13)*$EF_{A2,A12,A13}$

where: **EF_{A1} = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnace A1, which is equal to the lesser of the most recent stack test or Condition D.1.1(c).**

$EF_{A1,A11A3,A11}$ = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnaces ~~A1~~ **A3** through A11, which is equal to the lesser of the most recent stack test or Condition D.1.1 ~~(c)~~**(d)**.

$EF_{A2,A12,A13}$ = emission factor (lb PM emitted per ton of metal produced, lb PM/ton) for furnaces **A2,** A12 and A13, which is equal to the lesser of the most recent stack test or Condition D.1.1 ~~(d)~~**(e)**

(b) The potential to emit PM-10 shall be limited to less than ~~85.8~~ **85.2** tons per 12-consecutive month period, based on the following formula:

PM-10 = (total metal produced, furnaces A1 to A13)$EF_{A1,A13}$*

where: $EF_{A1,A13}$ = emission factor (lb PM-10 emitted per ton of metal produced, lb PM-10/ton) for furnaces A1 to A13, which is equal to the lesser of the most recent stack test or Condition D.1.1 ~~(c)~~**(f)**

YEAR: _____

Month	This Month				Previous 11 Months				Total 12 Months			
	Aluminum Produced, **A1-A13** (tons)		Total PM Emitted (tons)	Total PM10 Emitted (tons)	Aluminum Produced, **A1-A13** (tons)		Total PM Emitted (tons)	Total PM10 Emitted (tons)	Aluminum Produced, **A1-A13** (tons)		Total PM Emitted (tons)	Total PM10 Emitted (tons)
	~~A1-A11~~	~~A12&A13~~			~~A1-A11~~	~~A12&A13~~			~~A1-A11~~	~~A12&A13~~		

9 No deviation occurred in this quarter. **9** Deviation/s occurred in this quarter. Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Appendix A: Emissions Summary (Page 1 of 6)

Company Name: Citation Bohn Aluminum Corporation
Address City IN Zip: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: 033-7938-00016
Significant Permit Revision No.: 033-15396-00016
Reviewer: Michael Hirtler
Date: May 15, 2002

Potential Uncontrolled Emissions (tons/year)

Emissions Generating Activity for the New Equipment Under this Significant Permit Revision

Pollutant	Metal Melting	Pouring/Casting	Saw/Trim Metal	Combustion		Total
PM	82.4	*	*	0.1		82.6
PM-10	81.0	*	*	0.6		81.5
SO2	0.0	*	*	0.0		0.0
NOx	0.0	*	*	7.5		7.5
VOC	0.5	*	*	0.4		0.9
CO	0.0	*	*	6.3		6.3
Single HAP (HCl)	3.8	*	*	negligible		3.8
Total HAPs	4.0	*	*	negligible		4.0

Total Potential Uncontrolled Emissions based on rated capacity assuming operations at 8,760 hours per year.

* Total existing pouring/casting & saw/trim emissions for all furnaces remains unchanged after the addition of new furnaces A1 and A2 for replacement of existing A1 and A2. Therefore, there are no new emissions for these activities.

Potential Controlled/ Limited Emissions (tons/year)

Emissions Generating Activity for the Entire Source After this Significant Permit Revision

Pollutant	Metal Melting	Pouring/Casting	Saw/Trim Metal	Combustion		Total
PM	<89.4	6.9	2.3	1.4		<100
PM-10	<85.2	6.9	2.3	5.6		<100
SO2	0.0	0.6	0.0	0.4		1.1
NOx	0.0	0.3	0.0	73.7		74.0
VOC	1.5	4.5	0.0	4.1		10.0
CO	0.0	0.0	0.0	61.9		61.9
Single HAP (as HCl)	9.4	0.0	0.0	negligible		<10
Total HAPs	10.2	0.0	0.0	negligible		10.2

Total Controlled/Limited Emissions based on rated capacity assuming limited operations, after controls (see Section D.1 for detailed conditions limiting source emissions).

Appendix A: Emission Calculations
Natural Gas Combustion - New Burners A1 & A2

Company Name: Citation Bohn Aluminum Corporation
Address City IN Zip: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: 033-7938-00016
Significant Permit Revision No.: 033-15396-00016
Reviewer: Michael Hirtler
Date: May 15, 2002

Combustion	Total Capacity	Potential Thruput	Emission Factor in lb/MMCF						Potential Emission Rate in tons/year					
Unit Type	MMBtu/hr	MMCF/yr	PM*	PM10*	SO2	NOx**	VOC	CO***	PM	PM10	SO2	NOx	VOC	CO
Reverb. Furnace A1 (4 Burners)	9.20	80.59	1.9	7.6	0.6	100.0	5.5	84.0	0.08	0.31	0.02	4.03	0.22	3.38
Reverb. Furnace A2 (3 Burners)	7.86	68.85	1.9	7.6	0.6	100.0	5.5	84.0	0.07	0.26	0.02	3.44	0.19	2.89
Uncontrolled Potential to Emit: (tons per year)	17.06	149.45							0.14	0.57	0.04	7.47	0.41	6.28

Methodology

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 94 for heat input capacity < 0.3 MMBtu/hr; = 100 for heat input capacity =>0.3 MMBtu/hr

**Emission Factors for CO: Uncontrolled = 40 for heat input capacity < 0.3 MMBtu/hr; = 84 for heat input capacity =>0.3 MMBtu/hr

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPL. D 7/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emission Calculations
Natural Gas Combustion - Existing Burners

Company Name: Citation Bohn Aluminum Corporation
Address City IN Zip: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: 033-7938-00016
Significant Permit Revision No.: 033-15396-00016
Reviewer: Michael Hirtler
Date: May 15, 2002

Combustion Unit Type	Individual Capacity MMBtu/hr	Total Capacity MMBtu/hr	Potential Thruput MMCF/yr	Emission Factor in lb/MMCF						Potential Emission Rate in tons/year					
				PM*	PM10*	SO2	NOx**	VOC	CO***	PM	PM10	SO2	NOx	VOC	CO
Reverb. Furnace A3 (2 Burners)	3.76	7.52	65.88	1.9	7.6	0.6	100.0	5.5	84.0	0.06	0.25	0.02	3.29	0.18	2.77
Reverb. Furnace A4 (3 Burners)	3.35	10.05	88.04	1.9	7.6	0.6	100.0	5.5	84.0	0.08	0.33	0.03	4.40	0.24	3.70
Reverb. Furnace A5 (2 Burners)	3.35	6.70	58.69	1.9	7.6	0.6	100.0	5.5	84.0	0.06	0.22	0.02	2.93	0.16	2.47
Reverb. Furnace A6 (3 Burners)	3.35	10.05	88.04	1.9	7.6	0.6	100.0	5.5	84.0	0.08	0.33	0.03	4.40	0.24	3.70
Reverb. Furnace A7 (2 Burners)	2.60	5.20	45.55	1.9	7.6	0.6	100.0	5.5	84.0	0.04	0.17	0.01	2.28	0.13	1.91
Reverb. Furnace A8 (1 Burner)	2.50	2.50	21.90	1.9	7.6	0.6	100.0	5.5	84.0	0.02	0.08	0.01	1.10	0.06	0.92
Reverb. Furnace A9 (4 Burners)	2.65	10.60	92.86	1.9	7.6	0.6	100.0	5.5	84.0	0.09	0.35	0.03	4.64	0.26	3.90
Reverb. Furnace A10 (6 Burners)	1.50	9.00	78.84	1.9	7.6	0.6	100.0	5.5	84.0	0.07	0.30	0.02	3.94	0.22	3.31
Reverb. Furnace A11 (6 Burners)	2.65	15.90	139.28	1.9	7.6	0.6	100.0	5.5	84.0	0.13	0.53	0.04	6.96	0.38	5.85
Reverb. Furnace A12 (2 Burners)	6.25	12.50	109.50	1.9	7.6	0.6	100.0	5.5	84.0	0.10	0.42	0.03	5.48	0.30	4.60
Reverb. Furnace A13 (2 Burners)	6.25	12.50	109.50	1.9	7.6	0.6	100.0	5.5	84.0	0.10	0.42	0.03	5.48	0.30	4.60
Crucible Holding Furnace 1 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 2 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 3 (1 Burner)	5.80	5.80	50.81	1.9	7.6	0.6	100.0	5.5	84.0	0.05	0.19	0.02	2.54	0.14	2.13
Crucible Holding Furnace 4 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 5 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 6 (2 Burners)	0.50	1.00	8.76	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.03	0.00	0.44	0.02	0.37
Crucible Holding Furnace 7 (2 Burners)	0.50	1.00	8.76	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.03	0.00	0.44	0.02	0.37
Crucible Holding Furnace 8 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 9 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 10 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 11 (2 Burners)	0.50	1.00	8.76	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.03	0.00	0.44	0.02	0.37
Crucible Holding Furnace 12 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 13 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Crucible Holding Furnace 14 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Crucible Holding Furnace 15 (2 Burners)	0.50	1.00	8.76	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.03	0.00	0.44	0.02	0.37
Crucible Holding Furnace 16 (2 Burners)	0.50	1.00	8.76	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.03	0.00	0.44	0.02	0.37
Crucible Holding Furnace 17 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Crucible Holding Furnace 18 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Crucible Holding Furnace 19 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Crucible Holding Furnace 20 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 21 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 22 (2 Burners)	0.50	1.00	8.76	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.03	0.00	0.44	0.02	0.37
Crucible Holding Furnace 23 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 24 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 28 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Crucible Holding Furnace 29 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Crucible Holding Furnace 30 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 31 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 32 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Crucible Holding Furnace 33 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace H-1 (1 Burner)	1.48	1.48	12.96	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.05	0.00	0.65	0.04	0.54
Holding Furnace H-2 (1 Burner)	1.48	1.48	12.96	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.05	0.00	0.65	0.04	0.54
Reverb. Holding Furnace S1 (1 Burner)	5.80	5.80	50.81	1.9	7.6	0.6	100.0	5.5	84.0	0.05	0.19	0.02	2.54	0.14	2.13
Reverb. Holding Furnace S2 (1 Burner)	5.80	5.80	50.81	1.9	7.6	0.6	100.0	5.5	84.0	0.05	0.19	0.02	2.54	0.14	2.13
Reverb. Holding Furnace S3 (1 Burner)	5.80	5.80	50.81	1.9	7.6	0.6	100.0	5.5	84.0	0.05	0.19	0.02	2.54	0.14	2.13
Reverb. Holding Furnace S4 (1 Burner)	5.80	5.80	50.81	1.9	7.6	0.6	100.0	5.5	84.0	0.05	0.19	0.02	2.54	0.14	2.13
Heat Treat Furnace 4 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Heat Treat Furnace 5 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Uncontrolled Potential to Emit (tons per year)		151.18	1324.34							1.26	5.03	0.40	66.22	3.64	55.62

Methodology

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 94 for heat input capacity < 0.3 MMBtu/hr; = 100 for heat input capacity =>0.3 MMBtu/hr

**Emission Factors for CO: Uncontrolled = 40 for heat input capacity < 0.3 MMBtu/hr; = 84 for heat input capacity =>0.3 MMBtu/hr

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPL. D 7/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

NOTE: These burners have not been modified as part of this signficant permit revision, except that the burner emissions from existing reverberatory furnaces A-1 and A-2 have been removed. Natural gas combustion emissions from the burners on the two (2) new A-1 and A-2 replacement furnaces are included on TSD Appendix A, page 2 of 6.

Company Name: Citation Bohn Aluminum Corporation
Address City IN Zip: 6378 U.S. Highway 6 West, Butler, IN 46721
FESOP No.: 033-7938-00016
Significant Permit Revision No.: 033-15396-00016
Reviewer: Michael Hirtler
Date: May 15, 2002

POTENTIAL UNCONTROLLED EMISSION RATES FOR METAL PRODUCTION FROM NEW REVERBRATORY FURNACES A1 & A2

Smelting Furnace/Reverberatory

TYPE OF MATERIAL	Total Potential Metal Production Rate	Total Potential Metal Production Rate
	7.11	62,283.60
	tons metal/hour	tons metal/year
Aluminum		

Emissions Unit	Maximum Furnace Melt Rate	Emission Factor		Potential Uncontrolled Emission Rate (lb/hr)		Potential Uncontrolled Emission Rate (tons/yr)	
		PM	PM 10	PM	PM 10	PM	PM 10
	tons/hour	lbs/ton metal produced	lbs/ton metal produced	lb/hour	lb/hour	tons/yr	tons/yr
New Reverberatory Furnace A1	3.83	2.6	2.6	9.96	9.96	43.62	43.62
New Reverberatory Furnace A2	3.28	2.7	2.6	8.86	8.53	38.79	37.35
				Total Potential Uncontrolled Emissions (tons/year):		82.41	80.97

Flux Addition During Metal Smelting

TYPE OF MATERIAL	Potential Throughput of HMC-4 Flux Material	Potential Throughput of WF HB2 Flux Material	Potential Throughput of HMC-4 Flux Material	Potential Throughput of WF HB2 Flux Material
	1.925	3.075	16,863	26,937
	lb/hour	lb/hour	lb/year	lb/year
Flux				

	Emission Factors as Derived from Stack Testing				Potential Uncontrolled Emission Rates (tons/year)			
	VOC	Hydrogen Flouride (HF)	Hydrogen Chloride (HCl)	Hexachloroethane	VOC	HF	HCl	Hexachloroethane
	lbs/lb flux	lbs/lb flux	lbs/lb flux	lbs/lb flux	tons/year	tons/year	tons/year	tons/year
HMC-4 Fluxing Material (A12,A13)	0.0213	0.0000	0.3109	0.0007	0.18	0.00	2.62	0.01
WF HB2 Fluxing Material (A12,A13)	0.0213	0.0143	0.0836	0.0002	0.29	0.19	1.13	0.00
			Total Potential Uncontrolled Emissions (tons/year):		0.47	0.19	3.75	0.01

METHODOLOGY

Reverberatory furnace PM emission factors reflect the values that have been determined to be necessary for facility compliance with the PM emission limits of 326 IAC 6-3-2. The PM10 emission factor was taken from AP-42, 5th Ed., Suppl. B Table 12.8-3. The applicant has provided agreement with the use of the PM emission factor, and compliance stack testing will be required as a condition of this SPR to the FESOP such that compliance with the limits of 326 IAC 6-3-2 will be verified.
Pouring/casting & saw/trim emissions for all furnaces remains unchanged from the existing A1 and A2 furnaces. There are no new emissions for these activities attributable to the two (2) new replacement furnaces.

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POTENTIAL CONTROLLED/LIMITED EMISSION RATES FOR THE ENTIRE SOURCE INCLUDING EXISTING FURNACES A3-A13, PLUS NEW FURNACES A1 & A2

Smelting Furnace/Reverberatory

TYPE OF MATERIAL	Total Potential Metal Production Rate	Total Limited ** Metal Production Rate
	26.26	63306.27
	tons metal/hour	tons metal/year
Aluminum		

** Note: Total limited metal production rate is based on a 12-month rolling average. For purposes of limiting source-wide PM & PM10 emissions below the PSD & Part 70 major source threshold of 100 ton/yr, the production limit for metal melting is determined as follows: 100 tons PM/yr - 10.60 (PM from other activities) = 89.40 ton/yr; and for PM10: 100 tons PM10/yr - 14.80 (PM10 from other activities) = 85.20 tpy. Next, total (all furnaces) metal production is limited such that emissions are limited to less than 89.4 tons/year of PM and 85.2 tpy of PM10. While an estimated equivalent limited metal production rate is determined using the ratio 89.4/324.8 (i.e., limited PM emission rate/uncontrolled PM emission rate for all 13 furnaces), the final metal prodution limit is variable and unspecified due to multiple PM emission factors. Instead, the source will comply pursuant to the equations presented at Condition D.1.1. Compliance with Condition D.1.1 will result in compliance with 326 IAC 2-8 (FESOP) for PM10, and also 326 IAC 2-2 (PSD) for PM will not apply.

Emissions Unit	Maximum Furnace Melt Rate	Emission Factor		Controlled/Limited Emission Rate (tons/yr)	
		PM	PM 10	PM	PM 10
	tons/hour	lbs/ton metal produced	lbs/ton metal produced	tons/year	tons/year
New Reverberatory Furnace A1	3.83	2.6	2.6		
New Reverberatory Furnace A2	3.28	2.7	2.6		
Existing Rev. Furnaces A3-A11 *	12.15	3.0	2.6		
Existing Rev. Furnaces A12-A13 *	7.00	2.7	2.6		
		Total Potential Controlled/Limited Emissions (tons/year):		89.40	85.20

Flux Addition During Metal Smelting

TYPE OF MATERIAL	Potential Throughput of HMC-4 Flux Material	Potential Throughput of WF HB2 Flux Material	Limited Throughput of ** HMC-4 Flux Material	Limited Throughput of ** WF HB2 Flux Material
	26.925	43.075	29,592	114,832
Flux	lb/hour	lb/hour	lb/year	lb/year

** Note: Limits based on Condition D.1.2 from SPR 003-14732-00016 to FESOP 033-7938, limiting the total input usage of hexachloroethane to the fluxing stage of the melt cycle to not exceed 56,237 pounds per 12 month period, based on 0.3343 pounds of HCl emitted per pound of hexachloroethane used in the flux.

	Emission Factors as Derived from Stack Testing				Potential Uncontrolled Emission Rates (tons/year)			
	VOC	Hydrogen Flouride (HF)	Hydrogen Chloride (HCl)	Hexachloroethane	VOC	HF	HCl	Hexachloroethane
	lbs/lb flux	lbs/lb flux	lbs/lb flux	lbs/lb flux	tons/year	tons/year	tons/year	tons/year
HMC-4 Fluxing Material (Entire Source) *	0.0213	0.0000	0.3109	0.0007	0.32	0.00	4.60	0.01
WF HB2 Fluxing Material (Entire Source) *	0.0213	0.0143	0.0836	0.0002	1.22	0.82	4.80	0.01
			Total Potential Controlled/Limited Emissions (tons/year):		1.54	0.82	9.40	0.02

Pouring/Casting

TYPE OF MATERIAL	Total Potential Furnace Melt Rate	Total Limited Metal Production Rate
	26.26	63,306.27
Aluminum	tons metal/hour	tons metal/year

	Emission Factors					Potential Controlled/Limited Emission Rate (tons/year)				
	PM	PM10	SOx	NOx	VOC	PM	PM10	SOx	NOx	VOC
	lbs/day	lbs/day	lbs/ton metal produced	lbs/ton metal produced	lbs/ton metal produced	tons/year	tons/year	tons/year	tons/year	tons/year
ME-Cell (A12,A13) *	12.92	12.92	0.02	0.01	0.14	2.36	2.36			
Aluminum Castings A1-A11 *	25.00	25.00	0.02	0.01	0.14	4.56	4.56			
				Total Potential Controlled/Limited Emissions (tons/year):		6.92	6.92	0.63	0.32	4.43

Sawing & Trimming of Aluminum Die Cast Parts

TYPE OF MATERIAL	Parts Throughput tons/hour	Control System Efficiency (%)
Aluminum	3.79	96%

	Emission Factor		Potential Controlled Emission Rate (tons/yr)	
	PM	PM10	PM	PM10
	lb/ton metal parts	lb/ton metal parts	tons/year	tons/year
Die Cast Parts A12, A13 *	3.44	3.44	0.78	0.78
Die Cast Parts A1-A11 *	3.44	3.44	1.51	1.51
	Total Potential Controlled/Limited Emissions (tons/year):		2.29	2.29

METHODOLOGY

* Reflects existing facility information as taken from original FESOP033-7938-00016, issued January 26, 1999, for aluminum melting at existing furnaces A3-A11, with pouring/casting and sawing & trimming PM/PM10 remaining unchanged (i.e., PM/PM10 emissions for these activities remains unchanged, even with new A1 and A2 replacing the existing A1 and A2 furnaces reflected in FESOP 7938); and as taken from Significant Permit Revision No. 14858, issued January 4, 2002, for melting at furnace A12 & A13, and pouring/casting and sawing & trimming for A12 & A13.

Emission factors for metal fluxing operations taken from May 1996 stack test report as presented in original FESOP application.
PM and PM10 emission factors for pouring/casting operations reflect daily upper limit threshold for "insignificant activity" (i.e., 25 lb/day), which was specified in the original FESOP application for A1-A11, and as reflected in SPR No. 14858 for A12 & A13.
Other pollutant factors taken from USEPA FIRE database, version 6.23, for SCC 3-04-001-14.
Emission factors for sawing & trimming of casted parts are based on actual 1995 cyclone collection of 29,700 pounds PM, 96% collection efficiency, and 9,000 tons of production, as presented in original FESOP application. The throughput value reflects the original FESOP value of 2.5 tons per hour from A1-A11, plus 1.29 tons/hour for A12&A13 taken from SPR No. 14858.

Appendix A: Secondary Metal Production - Aluminum

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Reviewer: Michael Hirtler
Date: May 15, 2002

PARTICULATE MATTER COMPLIANCE CALCULATIONS FOR NEW PROCESS OPERATIONS

The following process operations are subject to the particulate matter emission limitations pursuant to 326 IAC 6-3-2: reverberatory metal smelting, pouring & casting, and sawing & trimming of die cast parts.

Pursuant to 326 IAC 6-3-2, the allowable particulate matter emission rate, E (expressed in lb/hr) is determined as follows:

E = 4.10 P^0.67 for process weight rates (P, expressed in tons/hour) up to 30 tons; or (Equation 1)

E = 55.0 P^0.11 - 40 for process weight rates (P, expressed in tons/hour) in excess of 30 tons. (Equation 2)

Emissions Unit	326 IAC 6-3-2 Process Weight Rate tons/hour	Particulate Matter Emission Rate (lb/hr) Potential lb/hr	Allowable lb/hr	
New Reverberatory Furnace A1	3.83	9.96	10.08	(will comply)
New Reverberatory Furnace A2	3.28	8.86	9.09	(will comply)
Aluminum Castings *	26.26	4.56	36.62	(will comply)

Note: Allowable particulate matter emission rates (lb/hr) based on use of Equation 1. Process weight rates reflect the maximum hourly furnace metal melt rate.

* Total castings for furnaces A1 through A11 is treated as a single faci.lity, based on FESOP 033-7938. The process weight rate is increased from 13.55 ton/hr to 26.26 ton/hr with replacement furnaces A! and A2.